Effect of Teaching Intervention on Knowledge Regarding Disaster Preparedness among Undergraduate Students

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Abstract

Any incident that causes devastation and misery and generates demands greater than what the affected community can handle qualifies as a disaster. Disasters typically have an immediate, severe, and unanticipated impact on health. The body of operational, policy, and administrative actions that are relevant to the various stages of a disaster at all levels constitutes disaster preparedness. Natural catastrophes of many kinds might occur in India because of its diverse topography and climate. Imogene King's conceptual framework serves as the foundation for research. One group pre-post tests and a quantitative pre-experimental design were employed. Fifty samples in all were chosen using a non-probability convenience method. Structured knowledge questionnaires were the instrument used to collect the essential data. The acquired data were examined and evaluated using descriptive and inferential statistical methods, including mean, standard deviation, "t" test, and chi square test value. With a mean difference of 6.72, the mean post test knowledge score of 18.34 was greater than the mean pre test knowledge score of 11.62. The paired 't'-test was appropriately selected and performed. The computed t-value, which is 15.18, is very important. The outcome unquestionably demonstrates that the STP considerably increased undergraduate students' awareness of disaster preparedness. A suitable and efficient technique of instruction for updating and increasing the knowledge of undergraduate students was the structured teaching programme.

Keywords: Teaching Intervention, Knowledge, Disaster Preparedness, Undergraduate Students.

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Introduction

Disasters are widely categorised as either natural occurrences, man-made happenings, or a combination of the two [1]. Regularly occurring natural and technology mass disasters cause an increasing number of fatalities, injuries, economic losses, social issues, and environmental harm in densely populated places [2]. Disasters are situations or occurrences that are beyond the capabilities of the local community and that can result in significant property destruction and human suffering. Although disasters are rare, their effects can be quite devastating, thus health care workers must make every effort to be well prepared [3]. Almost 85% of the nation is at risk from one or more disasters. 27 of the 36 states and union territories in the nation are vulnerable to natural disasters. India's multi-hazard map shows that 229 districts are vulnerable to numerous hazards; West Bengal, for instance, is vulnerable to four different categories of disasters. A lot of lives have been lost as a result of floods, droughts, earthquakes, cyclones, landslides, and avalanches, which have also significantly damaged property. A contract for the implementation of the "disaster risk management" programme to lessen the

vulnerability of the communities to natural disasters, in identified multi-hazard disaster prone areas, was signed in August 2002 by the Indian government, the ministry of home affairs, and the United Nations development programme. Over a six-year period, the initiative has been divided into two phases. To carry out the operations in 28 chosen districts in the states of Bihar, Gujarat, and Orissa, Phase-1 [2002-2004] would give support. 141 districts, including those in Assam, Meghalaya, Sikkim, West Bengal, Uttaranchal, Uttar Pradesh, Delhi, Maharashtra, Tamilnadu, Manipur, Mizoram, Tripura, Arunachal Pradesh, and Nagaland, would be covered by the programme during Phase 2 (2003–2007). The knowledge gained from past natural catastrophes like earthquakes, floods, and cyclones can be applied to future readiness for crises like the emergence of epidemics, the psychological trauma of losing one's home and sense of security, or the pollution of food and water. The effects of chemical disasters, on the other hand, and how they affect environmental health are nearly always unanticipated.

There is typically no warning signal, leaving the community with little time to brace itself for the repercussions. Most of the time, it is difficult to determine the cause-and-effect relationship in a chemical disaster; as a result, emergency treatment must be initiated based on arbitrary factors. This may also negatively affect the post-emergency rehabilitation plan. The years 1974 to 1984 saw an unusually high number of industrial accidents involving dangerous chemicals, including the Bhopal disaster in December 1984, the Flixborough explosion, the Beek disaster caused by the release of propylene under pressure, the Seveso disaster, and the explosion in Mexico involving liquefied gas. To save lives and lessen the effects of disasters and potential pandemics, nurses must be prepared and quick to act. This study sought to compile the information that shows that nurses in underdeveloped nations are adequately prepared for disasters [4]. Disasters on a national and international scale demand a lot of resources, including nurses. Healthcare professionals who want to work in disaster relief contexts should strongly consider undergoing personal, professional, and spiritual preparation [5].

Around the world, nurses are essential to disaster management. Disaster nursing education and training programmes have become more widespread worldwide in response to the urge for all nurses to be disaster-ready. The establishment and coverage of disaster nursing education and training programmes, however, are not well understood [6]. The need for disaster preparedness training must be emphasised given the rising frequency of calamities worldwide. The majority of healthcare workers are nurses, and they frequently play a key role in crisis management. Therefore, beginning with their pre-service training and continuing through their professional training while on the job, nurses should be sufficiently prepared with the information and skills to respond to disasters. However, most nations only barely include disaster preparedness instruction in their undergraduate nursing courses [7]. Hence the investigator felt the need of conducting an educational intervention to create awareness on the Disaster Preparedness among college students.

Materials and methods

One group pre-post tests and a quantitative pre-experimental design were employed in the investigation. The study's variables included the teaching program's structure as an independent variable and undergraduate students' understanding of disaster preparedness as a dependent variable. Age, Gender, Religion, place of residence, family monthly income, previous exposure to disaster preparedness, source of information are Demographic variable.

O1:- Administration of self-administered questionnaire to the Undergraduate students on DAY 1.

X: - Administration of Teaching Intervention on Disaster Preparedness to the Undergraduate students on DAY -1.

O2: - Administration of Self-administered questionnaire to the Undergraduate students on DAY-7 after administration of Teaching Intervention

For the study, a non-probability convenient selection method was employed to choose a

sample of 50 undergraduate students from a few Visnagar colleges.

Both the pretest and posttest used a structured knowledge questionnaire. It has 25 multiple-choice questions and 10 demographic factors.

The knowledge level has been rated as:

• Inadequate 50%

• Medium 50-75%

• Sufficient > 75-100%

The Teaching Intervention was a prepared teaching program.

Results and discussion

The findings showed that are 44 (88%)students are between age group of 17 to 19 years, 06(12%) are Above 19 years. 10 (20%)students are male and 40(80%)students are female. 17 (34%)students are from urban area and 33(66%)students are from rural area. 4 (8%)students having family income of 5001-10000 rupees per month ,18 (36%) students family income of 5001-10000 rupees per month and 28 (56%) students having family income of Above 15000 rupees per month. 32(64%) Undergraduate students did not had previous knowledge about disaster preparedness and 18(36%)Undergraduate students had previous knowledge about disaster preparedness. 10% Undergraduate students got information from friends & Family, 40 % Undergraduate students got information from Mass media,42% Undergraduate students got information from Self-Reading, 8 % Undergraduate students got information from Health personnel.

Figure 1: Percentage distribution of undergraduate students with knowledge in pre-test and post-test.

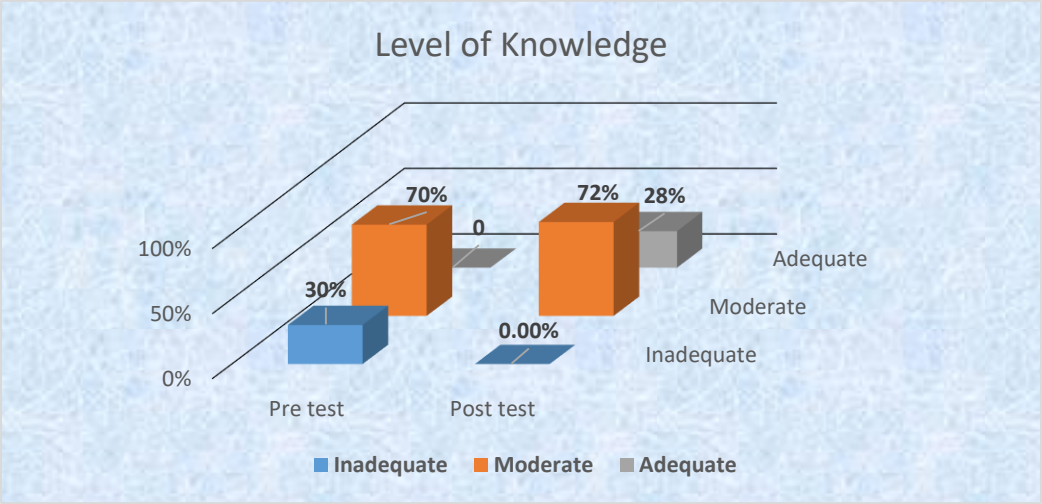

Figure 1 shows that before the teaching program was administered, (30%) of the entire group had insufficient knowledge, and (70%) had moderate understanding. The sample's level of knowledge had significantly improved by the time of the post-test, with (72%) having a moderate degree of knowledge and (28%) having adequate knowledge.

Table 1: Effectiveness Teaching Intervention on Disaster Preparedness among of undergraduate students.

Parameter	Mean	Standard deviation	Mean difference	't' value	Table 't' value	Level of Significance 0.05
Pre-test	11.62	1.79	6.72	15.18	1.67	S
Post-test	18.34	2.72				

The data presented in Table 1 shows that in comparison to the mean pre-test knowledge score (11.62), the mean post-test knowledge score (18.34) was greater. The estimated t' value (15.18) was higher than the table value (1.67) at the 0.05 level of significance, indicating that the teaching intervention was successful in raising undergraduate students' awareness on the Disaster Preparedness.

In Chi square analysis, the demographic variables like age,gender, religion, family income were found to have no significant association with the samples' level of knowledge regarding Disaster Preparedness. The variables like previous knowledge on disaster preparedness and source of information were found to have significant association with their knowledge.

Conclusion and outlook

The intended health education on disaster preparedness among undergraduate students was successful, according to the study's findings. A suitable and efficient technique of instruction for updating and increasing the knowledge of undergraduate students was the structured teaching programme. It is concluded that demographic variables like Previous knowledge regarding disaster preparedness of the study, Source of information are significantly associated with the knowledge score of students regarding disaster preparedness. The findings led to the following recommendations being made for future research, including the possibility of replication with a sizable sample size, conduct in a different setting areas may done with true experimental research approach, Conduct using other strategies like SIM,Booklets and pamphlets. The study will give emphasis on imparting the knowledge and awareness to undergraduate students regarding disaster preparedness.The study will help the nursing student to understand the lacking area of knowledge regarding disaster preparedness.

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